

FORM PTO 1390
(REV 11-98)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

ALBIHN-420

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371**

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

09/937259INTERNATIONAL APPLICATION NO.
PCT/SE00/00565INTERNATIONAL FILING DATES
23 MARCH 2000PRIORITY DATE CLAIMED
24 MARCH 1999TITLE OF INVENTION A METHOD FOR COMPUTER CONTROLLED DISTRIBUTION OF INFORMATION OVER A
NUMBER OF DIFFERENT COMMUNICATION SYSTEM AND A SYSTEM FOR THE
ACCOMPLISHMENT OF THE METHODAPPLICANT(S)
FOR DO/EO/US Sven PRYTZ

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to promptly begin national examination procedures (35 U.S.C. 371 (f)).
4. ☒ The US has been elected by the expiration of 19 months from the priority date (PCT Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c)(2))
 - a. ☐ is attached hereto (required only if not transmitted by the International Bureau).
 - b. ☒ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371 (c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)). (Unexecuted)
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98. w/PTO-1449, 4 references
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 & 3.31 is included.
13. ☐ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:

Copy of International Application as published
 Copy of International Preliminary Examination Report w/annexes
 Two (2) Sheets Formal Drawings

EXPRESS MAIL LABEL NO. EL804522392US**DATE: September 24, 2001**

U.S. PATENT APPLICATION NO. (Unknown) (see 37 CFR 1.5) **097/937259**

INTERNATIONAL APPLICATION NO.
PCT/SE00/00565

ATTORNEY'S DOCKET NUMBER
ALBIHN-420

17. ☒ The following fees are submitted:

BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):

- ☐ Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO . . . \$1,000 00
- ☒ International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO . . . \$860 00
- ☐ International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO . . . \$710 00
- ☐ International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) . . . \$690 00
- ☐ International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) . . . \$100 00

CALCULATIONS PTO USE ONLY

ENTER APPROPRIATE BASIC FEE AMOUNT =

1,000.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE
Total claims	4 - 20 =		x \$18.00
Independent claims	1- 3 =		x \$80.00
MULTIPLE DEPENDENT CLAIM(s) (if applicable)			+ \$270.00

TOTAL OF ABOVE CALCULATIONS =

1,000.00

☐ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.

-500.00

SUBTOTAL =

500.00

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (f)). +

TOTAL NATIONAL FEE =

500.00

Fee for recording the enclosed assignment (37 CFR 1.21 (h)). Assignment must be accompanied by appropriate cover sheet (37 CFR 3.28, 3.31) (\$40.00 per property). +

TOTAL FEES ENCLOSED =

500.00

**Amount to be:
Refunded**

Charged

- a. ☐ A check in the amount of _____ to cover the above fees is enclosed.
- b. ☒ Please charge my Deposit Account No. 12-1095 in the amount of \$ 500.00 to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required or credit any overpayment to my Deposit Account No. 12-1095 . A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

**Lerner, David, Littenberg,
Krumholz & Mentlik, LLP**
600 South Avenue West
Westfield, NJ 07090
Telephone 908 654-5000
Facsimile 908 654-7866



Signature

ARNOLD H. KRUMHOLZ

Name

25,428

Registration Number

ART 34 AMDT

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10 Rec'd PCT/PTO 24 SEP 2001
09/937259

111433./2001-04-04

TITLE:

This invention relates to a method for computer-controlled distribution of information via a number of different alternative communication systems and system for the application of the method.

TECHNICAL FIELD:

This invention relates to a method for computer-controlled distribution of information via a number of different alternative communication systems and system for the application of the method.

CURRENT TECHNOLOGY:

For the transmission of document information between different parties such as between different companies or between companies and private individuals, there are principally two distribution systems available, namely via letter post and via electronic document transmission such as via fax or e-mail. Particularly within the business community there is a desire to limit the use of letter post as much as possible as it results in extensive paper handling and consumption of paper, not only for documents but also for envelopes. At the same time postal charges are high and the postal service relatively slow and sometimes rather unreliable. By the use of fax, paper handling is reduced and the information reaches the recipient very quickly. In addition the sender can obtain confirmation that the information has arrived. E-mail offers even greater benefits. To a certain extent the transmission of information can take place completely without the use of paper, if the information is written to computer memory on the premises of the sender and transferred and read off on the recipient's computer monitor, enabling the recipient to decide whether the message is to be stored electronically, on paper, or not stored at all. An advantage unique to e-mail is that the

electronically-stored information can be used by both the sender and the recipient for editing, for transferring completely or in part to a store or to working files so that it can be used for data
5 processing.

In spite of the fact that electronic communication has many considerable advantages compared to letter post, the latter is still used to a great extent,
10 particularly for private mail as is to be expected but also for outgoing mail from companies which, however, usually have the equipment available for electronic communication.

15 From US-A-5 513 126 (Harkins et al) is known a network using electronic communication channels, the network being provided to change the information transmitted from a sender to a communication profile established by the recipient. The invention presupposes that the sender
20 and the recipient are subscribers of the network and being equipped with devices for electronic communications. The invention has no relevance to a providing a facilitating to parties using correspondence by mail to change to electronic
25 communication.

There are several reasons for electronic communication being used to a limited extent in spite of the equipment being available. There will probably always
30 be documents which are only suitable for physical conveyance, in particular original material such as signed legal documents and also material with a large volume, such as books and other extensive printed material. One reason which should, however, be able to
35 be largely eliminated is the uncertainty on the part of the sender as to whether the recipient has the facilities to receive and handle electronically transmitted information and if so by what means and to

what address. On the other hand practically every imaginable contact has a known postal address, which means that the postal service is used as a necessity for much correspondence. For example, authorities and institutions such as banks regularly use the postal services for messages, injunctions, transaction confirmations, account communications and in particular for invoices. In spite of all its advantages, the relatively widespread use of electronic communication is limited to messages between companies and other parties between which there is close interaction and a frequent exchange of information.

It is therefore the case that within companies, institutions and authorities great gains could be made if the postal service was to be replaced by electronic communication whenever it was possible to do so. The gains would not just lie in the actual service being rationalized and having the least possible manual involvement but also in the information being able to be produced by the sender in a considerably more rational way than when using the postal service and in particular in the fact that it would be able to be used by the recipient directly as an input for further processing and storage whereas paper documents must often be transferred manually into a digital form before they can be worked on. This is particularly marked where accounting is concerned, as most companies today do their bookkeeping, ledger entries and financial reports by means of data processing using computers. It is therefore necessary for paper documents such as invoices, bank statements, etc, to be entered manually in order to be integrated in the data processing.

DESCRIPTION OF THE INVENTION:

This invention concerns a method for computer-controlled selection of distribution paths for

information of various kinds produced on the premises of a sender in such a way that the best available distribution path is selected. The invention also concerns a communication and process system for the implementation of the method.

The intended information is produced in data form on the premises of the sender and transferred to a "distribution exchange", which independently analyses the information with respect to the reception address and type, and on the basis of the analysis selects the best communication path to be used and thereafter is responsible for the distribution. The method and the system for its implementation create many opportunities both on the premises of the sender and recipient for high-level rationalization of the production and further processing of the information.

Another important advantage of the invention is that it provides a high level of security against incorrect processing of the data, both on the premises of the sender and of the recipient. Similarly, high security is achieved against incorrect addressing and against siphoning off of information to unauthorized parties.

An additional and very important advantage is that the system can be introduced and utilized on the premises of the user without requiring any extensive installation work, and much of the work in the form of entering basic data, utilizing new computer programs and training of personnel can be eliminated by use of the method and system according to the invention.

DESCRIPTION OF THE FIGURES:

In the following the method and system according to the invention will be described with reference to the attached drawings which show the system diagrammatically.

Figure 1 shows a block diagram of the system regarding its function for production and distribution of information on the premises of the sender; and

Figure 2 shows a corresponding block diagram regarding the function of the system for the reception of information.

10. PREFERRED EMBODIMENTS

In the following the method and system are described in a mode of application aimed initially for accounting information with associated correspondence within a company or institution. Below are listed the most important processes and the documents associated with these within such accounting.

1. The debiting procedure

1. Production of basic debiting data on the basis of recorded deliveries, work carried out; etc
2. Determination of debiting data
 - a) addressee
 - b) specification
 - c) amount
 - d) terms
3. Internal recording of debiting data for the drawing up of:
 - a) ledgers
 - b) payment follow-up
 - c) financial reporting
4. Production of invoices in the form determined by the method of distribution (see 5 below)
5. Distribution of invoices in accordance with any of the methods:
 - a) the postal services
 - b) by fax

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- c) by e-mail via printer on the premises of the recipient
- d) direct electronic transmission of data to the data system on the premises of the recipient in accordance with the agreed addressing

II. The reception process

1. Arrival of invoice/invoicing data via:

- a) the postal services
- b) fax
- c) e-mail via printer
- d) direct input of data into the recipient's data system in accordance with the agreed addressing

2. Sorting of correspondence by content such as:

- a) payment instructions, for example invoices, demands for fees
- b) reporting of financial data concerning payments made, payments received, balances, etc
- c) other finance-related correspondence, for example queries concerning invoices issued, requests for quotes, orders, messages concerning payment difficulties
- d) correspondence not related to finances which is to result in action, for example injunctions and demands from the authorities or other correspondence with a fixed reply deadline
- e) correspondence not related to finances, of a general and informative nature

3. Internal distribution of incoming correspondence in accordance with its classification (II.2 a-e)

Classification in accordance with (2)

- a,b) To be recorded as financial data in the internal accounting system which is assumed to be computer-based

- c) to be distributed internally to the department/person responsible for the sector to which the matter is related
- d) the deadline is to be noted and the communication is to be distributed to the responsible party within the sector to which the action refers
- e) messages with possible relevance to the current business activity are to be distributed to the departments/persons concerned, for information and possible action.

As can be seen, after sorting, the finance-related correspondence (2a, b) can be recorded in the recipient's computer-based accounting system and results in relatively little manual processing. Other correspondence (2c, d, e) can not be rationalized to the same extent, but practically always requires personal consideration and action. However, computer-based tools such as checking and memory functions, word-processing, etc, can be used.

III. Processes brought about by the incoming correspondence

1. Payment processes, which after the arrival of the invoice or other payment demand has been recorded in a computer-based accounting system can be paid automatically via a bank, bank giro or postal giro by means of correct programming
2. Financial reporting which for a well-developed computer-based accounting system can be produced by means of a suitable computer program.
3. Following up of financial reports after examination. Can result in the redistribution

of funds, taking up or payment of loans, reorganization of certain business activities and other measures which in general fall under the area of responsibility of the management. Computer-based tools can only be used to a limited extent.

4. Correspondence not related to finance. Financial management controlled by computer can only be used for certain activities with well-established routines which are used frequently. However, in general there is a need for computer-based tools.

As shown by the above list there are great opportunities to rationalize the debiting procedure (I) by means of computer-based data processing. The first precondition for this is that the sender has access to a computer-based accounting system and computer programs for the requisite processes. This is the case for large companies and to an ever increasing extent also for smaller companies, and is always the case for companies and institutions with extensive financial management tasks, such as banks, insurance companies and certain authorities. However, the distribution (I.5) of invoices and other payment demands has not been fully rationalized as there is a dependence upon the reception capabilities of the recipient and the sender's knowledge of these. For received correspondence (II) there is similarly a dependence upon the correspondence medium used by the sender and, as mentioned, a sender will often not use the most rational distribution channel due to uncertainty regarding the available means of distribution. This means of course that the form of the received correspondence is determined by this uncertainty. If the distribution takes place

in a less rational way which is not based on electronic methods, this also has an adverse effect on the opportunities for rationalizing the sorting (II.2) and also affects the recording in the computer-based accounting system (II.3,a and b), so that there must be manual involvement. When recording in the accounting system has been carried out, the subsequent accounting measures (III.1, 2) can be carried out rationally if the accounting system is designed for this.

Accounting within companies and institutions is intrinsically well suited to computer-aided rationalization, which is also shown by the fact that such rationalization has been introduced relatively quickly and widely within the financial sector. As can be seen from the above, the main obstacle to optimal rationalization is the lack of rationalization of the distribution of the finance-related correspondence. Another obstacle particularly related to smaller companies is a lack of investment funds and time for the setting up of a well-developed accounting system.

Even though accounting has been mentioned as an area well-suited to the utilization of the invention, this does not exclude there being other areas where repeated routines occur. Examples of such areas are the booking of tickets and ordering of goods.

Other sent and received correspondence which is not based on set repeatable routines such as those relating to accounting does not provide the same opportunities for rationalization but requires a considerable degree of personal decision-taking and action. Here it will largely continue to be necessary to be satisfied with utilizing the available tools in the rationalization process, such as computer-based information systems, computer-based management tools, etc. However, even

here an important rationalization factor can be the fact that rational distribution is utilized. This is carried out to an ever increasing extent by fax and e-mail. However, here the restrictions also apply originating from the fact that it is not known what reception options the recipient has, for which reason the expensive and slow postal services must be used.

In the following the system according to the invention and the method in connection with this for the implementation of debiting procedures will be described. Reference is made first to the block diagram in Figure 1.

This depicts a system comprising three main parts: the sending party's unit 1 (above and to the left of the dotted line in the figure), an external service unit 2 (to the right of the dotted line) and the recipient's unit 3 (below the dotted line). The unit 1 comprises one or more devices for which the following definitions apply: computer 4, scanner 5, server 6 including requisite memory units, accounting system 7, printer 8, control unit 9 for correspondence and its distribution. Within the sender's unit 1 there can be several of these devices. Some units can be omitted, while other types of device for data processing and storage can be included. However, it is necessary for there to be devices for entering electronic data into the control device 9 and at least one printer 8 connected to this. Concerning the accounting system 7, this can be designated as a function within the system and does not need to be regarded as a separate hardware device but can be integrated into the rest of the data processing system. In this case the function is to comprise the ability to enter financial data, storage and processing of this and output of the data which is produced from the entered material by means of the data processing.

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The service unit 2 can be used by several units 1 on the premises of companies and institutions. The service unit is connected to control devices in the connected units via connections 15, which can be cable links or
5 wireless connections and preferably a connection via some available data network.

The service unit 2 comprises a data register 16 with an advanced search function for searching and extracting
10 data from a large quantity of stored data. A connection device 17 is connected to the incoming connection 15 from the unit 1 and to the data register 16 and also to outgoing connections 18, 19 and 20. In addition it is assumed that the connection device is connected to one
15 or more computers 21 with monitors and keyboards for human interface.

The sender's unit 1 and the service unit are designed for communication to a number of recipients, which in
20 the figure are represented by the units 3. These recipient units can have different equipment for the reception of correspondence. The different reception equipments which can occur are represented in Figure 1 by the following definitions: incoming postbox 25 for
25 postal correspondence, fax machine 26, printer 27 connected to a computer for the reception of e-mail, and a data storage and data processing device 28 for the reception of data in accordance with special addressing and activation codifying. Different
30 recipient units can therefore have a greater or lesser extent, from the case where it is only possible to use the postal services for document-based communication which is to be registered, to the case where there is a comprehensively developed system with special
35 addressing and activation functions in unit 28. Examples of such functions are transfers between accounts in different banks where a codified remote message triggers the transactions with account entry

and subsequent confirmation operations. The different extent of the units 3 on the premises of the respective prospective recipients is the reason for the above-mentioned uncertainty regarding which means of distribution can be used by the user.

As mentioned, the service unit is connected to the control device 9, which in turn is connected for the reception of data produced in the data system of the sender's unit and arranged to control the printer 8. The control device 9 is thereby arranged to transmit the received information via the line 15 to the control device 17 of the service unit 2 during breaks in the transmission of this data to the printer. The transmission to the service unit initiates a search process in the register unit 16. This is arranged to search for correspondences for the addressee identifications included in data obtained from the control device 9, in particular name and address information, and if these do not contain relevant electronic address information, to search for such information.

The process described can result either in a relevant electronic address being found from the identification data obtained from the control device 9 or by the search process, or in no such data being found. If there is an electronic address the service unit takes over the forwarding, which is carried out electronically via the addressable data device 28, e-mail 27 or fax 26 in that order of priority. If no electronic address can be found, the received data is returned to the control device 9 and forwarded to the printer 8, which is activated to print out the corresponding document for delivery by post.

Directory information in the service unit can be obtained from a number of media such as telephone

directories, fax directories, e-mail directories, official directories, etc., which generally are available in digital form, often via CD-ROM. As far as possible each address is supplemented with its address(es) for electronic communication: electronic addressing unit 28 with its codes, e-mail address or fax number.

If no useable electronic address can be found, distribution to the incoming postbox 25 must take place from the sender unit's printer 8 via the normal postal service. In other words, the correspondence in question must be printed out using the printer 8 and sent to the recipient by post as a letter. Other communication to the recipient, which is electronic, is sent as mentioned via the service unit 2. Accordingly the fax 26 is shown connected to the connection device 17 of the service unit by the line 18 via the printer-computer 27 by the line 19 and to the addressable computer device 28 by the line 20. Like the connection 15 these connections can be via cable or wireless and preferably by means of some established data network.

In the function for the intended debiting procedure the control device 9 constitutes a key element for the implementation of the method according to the invention. It is connected to the server 6 for the reception of data in such a form that it can control the printer 8 for the printing out of documents. Such documents are assumed here to be invoices or other payment demands, which are produced in the sender's unit 1. Such production can be implemented in various ways: by manual entry of data via the computer 4, by scanning of documents in the scanner 5 and/or by obtaining it from the accounting system 7. Sources of data to be entered in the accounting system can be of various kinds, such as delivery notes, work reports and incoming debits from sub-suppliers, which in turn can

already be recorded in a form suitable for entry and can have been produced in the computer or scanner, for example. In addition the control unit 9 is connected to the printer 8 for the production of documents in such a form that they can be sent by post. As mentioned, the control device is connected to the service unit 2 and its connection device 17 by means of the connection 15.

For a debiting procedure the following operations are carried out:

Entered data from the server to the control device 9 is forwarded via the connection 15 to the service unit 2 during a temporary break in the connection from the control device 9 to the printer 8. After entry, addressing data incorporated in the produced and transmitted data quantity is sent to the data register 16 for activation of its search function. The data which is found in the register comprises name and address information for the circle of addresses within the territory which is covered by the agreed service via the service unit 2. If any electronic addressing capabilities are found for the recipients in question during the searching this is selected with prioritizing of the connection via the addressable unit 28 and thereafter via e-mail and finally by fax. If any of these capabilities are available the service unit 2 produces from the quantity of data received from the control device 9 an invoice for the electronic distribution which has been decided upon. The above-mentioned data is supplemented by already entered data from the sender for printing out a complete invoice with the sender's logo, etc. In addition it is assumed that text will be included which provides information to the effect that the communication corresponds to the sending of an original invoice and that there will be no delivery by post.

A precondition for this operation being able to be carried out is that an electronic address for the recipient in question is found by the search. As, if such is the case, the electronically transmitted invoice is to replace the postal service, the control device ensures that no data is supplied to the printer 8 so that no postal delivery takes place. However, if no electronic address is found by the search, the data quantity is returned to the control device for forwarding to the printer 8. The document thus produced is handled in the normal way for postal delivery. Finally a report is sent from the service unit to the sender's accounting system 7 stating that the invoice has been sent and which communication medium was used.

This use of the method using the control device and the service unit is given as an example of the use for debiting. There is, however, no reason why it cannot be used for other correspondence, for example for follow-up measures to debiting, such as reminders and dunning letters. However, it can also be used for other correspondence where the sender cannot immediately find which distribution paths are available and where electronic transmission is preferable to the postal service.

Within the scope of the invention it is also the case that the control device 9 can be extended to include additional functions. An example of such a function is that it is equipped for the programming of particular functions. For example, it is possible for the printer 8 only to be used temporarily for a certain function, for example invoicing, and otherwise to have a more general use. For this it is expedient for there to be a program which is activated so that the above-mentioned function of the control unit can be put into effect, that is alternative production of printed communication or electronic communication via the service unit 2.

When this program is not activated the printer is connected directly to the server or other device in the sender's unit for normal printer applications. If, however, the above-mentioned program is put into effect, this can also comprise the above-mentioned supplementary data for creating a document in those instances when it is preferred to transmit the company logo or other information for printing out by the printer instead of using pre-printed headed paper or forms. As mentioned, it is assumed that such supplementary data will be able to be entered in the service unit but it can also be found in a data program for activation of the printer by means of the control device. Activation of the control device will also mean that the above-mentioned reporting function and updating of the accounting system 7 are maintained in the event of invoicing and other accounting measures.

Activation of the programs which it is wished to use in the sender's unit can of course be carried out by command via, for example, the computer 4 or via a keyboard connected directly to the control device. Another way is to connect in a diskette or CD-ROM containing the program in question. A further possibility which is also envisaged, is to provide the control device, or a device connected to this with a card reader. Using cards from which the program can be read off or activated from a memory, the required function can be ensured by reading the relevant cards. The cards can be clearly marked so that no errors occur, which is important particularly in connection with accounting. The cards can also be distributed only to authorized personnel, so that misuse, for example fraudulent debiting, can be prevented.

Figure 2 shows in greater detail how received correspondence can be handled according to the method in an internal system 35 on the premises of the

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recipient (between and to the left of the dotted lines). Above the upper dotted line there are the distribution methods 25-28 as shown in figure 1 and which here symbolize the paths for the correspondence coming to the system 35. Below the lower dotted line are the same distribution methods 25-28 but here symbolizing the paths for outgoing correspondence, which is occasioned by the respective incoming correspondence. To the right of the dotted vertical line is the service unit 2. The unit 1 for outgoing correspondence is indicated by a box outlined by dotted lines. It can be assumed that most of the users of the method and the system will have the need to be able both to send and receive correspondence. Here separate internal systems are described for these functions but in practice it can be expected that they will be integrated with each other to form a complete correspondence unit which can be designated 1,35.

20 The devices incorporated in the internal system 35 can be defined in the following way: a sorting station 36 to which postal correspondence 25, fax messages 26 and e-mails 27 are directed. The incoming material is then sorted, which can be assumed to be carried out manually, into mail that is to be processed by some employee, see the box 37, and mail where the data it contains can be entered via, for example, a computer into a server 38 for the storage of data for processing internally. Such data can, for example, be information from incoming invoices which is recorded manually. Such data can also arrive at the server 38 from employees, box 37.

35 Electronically addressable data, box 28, is assumed to be entered in the server for data processing directly, without going via the sorting station 36. As indicated by the arrow 40 it is assumed that the server 38 is connected to the unit 1 for the production and dispatch

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of correspondence, cf. the situation in figure 1. It is therefore possible for the server functions for 6 and 38 to be processed and stored in the same internal system.

5
What has been described so far concerns the purely internal handling. If, however, the service unit 2 is also used for handling incoming data, the sorting station 36 is to be connected to the service unit 2
10 directly or via a scanner 41. At least to a certain extent addressable messages are thereby also taken via the distribution path 28 to the service unit 2 for transmission via this to the server. Employees, box 37, are also connected to the service unit directly or
15 possibly also via a scanner. The service unit 2 is preferably arranged for such data processing so that at least to a certain extent scanner messages can be analysed (OCR function) for the production of, for example, sender identification for further automatic
20 data processing where such is possible. When such data is produced it is transmitted to the correspondence system 1,35 for registration.

For the distribution paths for outgoing correspondence,
25 see the lower boxes 25-28, it is the case that what was stated in connection with the description of Figure 1 applies. It is assumed, as for the previous example, that correspondence via the postal services is prepared internally within the company via a combination of the
30 control device 9 and the printer 8. In addition it can be assumed that a fax machine 26 is available and also sending capabilities for e-mail 27 and possibly also addressable transmission capabilities 28. It can therefore be expected that the employees, box 37, often
35 send their correspondence via one of the abovementioned distribution paths without making use of the service unit. However, if it is wished to use the service unit in the way described above for the selection of the

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distribution path, this requires a direct connection to the service unit or a connection via a scanner. The server 38 is also assumed to have a bi-directional connection with the service unit 2, suitably as in the first example via a control unit such as the control unit 9.

Data can thus arrive at the service unit 2 from various sources: from a system 28 for addressable electronic messages, from the sorting station 36 either directly or via a scanner, from the employee, box 37, and from the server 38 directly or via a control device. For data arriving from the sorting station 36 and/or the employee or from the server 38 and then via a control unit, the task of the service unit is to carry out the described search operation and implement distribution in the way described in connection with figure 1.

Several benefits are gained by means of the method and the system according to the invention. We have already pointed out the ability to select the most advantageous distribution path in a simple way by making use of an automatic process controlled by the separate database equipped with search functions for addresses in a comprehensive address directory. This handling can be expected to provide the impetus for the user's network of contacts to change over to electronic communication, whereby an even larger circle is created within which this rational means of communication is used regularly.

It should be added that the use of the service unit for distribution, both the internally initiated distribution and the distribution initiated by the incoming correspondence, can constitute a reason for transferring additional services to the database. By means of the channels of communication which are set up, it can be expedient to carry out book-keeping by means of the organization of the database, which

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particularly for smaller companies can result in lower handling costs, greater security and reduced need for personnel than with corresponding internal financial handling.

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The description above is based on the fact that the printer 8 for the printing out of documents which are to be sent by post is situated in connection with the sender unit 1 rather than closely connected to the service unit 2. The control device 9 can thereby operate in such a way that the service unit only handles electronic distribution of the computerised information, while on the other hand information which is to be sent by post is handled by the sender unit's printer 8, so that a document is produced which can be handed to the postal services on the part of the sender unit. This can be a suitable embodiment of the invention, particularly if there is a large quantity of transmissions in document form via post or in some other way such as by courier, for which electronic addressing is not applicable. For example, the addressees concerned may not have fax or an e-mail address or the consignments can largely concern original documents.

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Within the scope of the invention the system procedure can, however, be such that one or more printers are connected to the service unit, so that the control device or other control function connected to the service unit activates the connected printer for the printing out of the documents for which searching in the address directory of the service unit reveals that there is no address for electronic distribution available. The document can then be processed for forwarding as a service within the service unit.

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This can be the most suitable embodiment when it is not wished to process some document consignments within the sender unit.

- 5 Of course data for the document consignments which are not processed within the user unit must be reported to the relevant function address in the same.

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2001-04-03

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CLAIMS

1. Method of computer controlled distribution of information via a number of different alternative communication channels from a computer-based sender unit (1) producing electronic data corresponding to the above-mentioned information which is including data indicating a postal address of a intended recipient (3) unit (25-28) and being adapted to control a printer (8) to print said information, characterized in that the above-mentioned data via a transmission line (15) is transmitted to a service unit (2), in the service unit the respective postal address data is transmitted to a data register (16) containing a comprehensive directory of electronic addresses as e-mail addresses and telefacsimile numbers together with the corresponding postal addresses for the respective recipients unit and a data searching means being activated, when data relating to a postal address is received from the sender unit, to perform a search of an electronic address corresponding to the postal address received, and if such electronic address is established said data relating to the information corresponding to said address data is forwarded to the electronic address established by means of the search, while if no corresponding electronic address is established the data is forwarded to the printer (8) thereby activating it to print the information inclusive the postal address thereby producing a document adapted to be distributed by mail to the intended recipient (3) unit (25-28)

2. System for computer-controlled distribution of information via a number of different, alternative communication channels utilizing the method according to claim 1, the system comprising as a part the computer-based sender unit (1) provided to produce electronic data corresponding to said information which is including data indicating a postal address of an intended recipient's (3) unit (26-28), and being adapted to control a printer (8) to print said information, characterized by a service unit (2), a transmission line (15) connecting the sender unit (1) and the service unit (2) and provided to transmit said electronic data produced by the sender unit to the service

unit, in the service unit a data register (16) containing a comprehensive directory of electronic addresses together with the corresponding postal addresses, data searching means provided to be activated by means of reception of said postal address data to search of an electronic address corresponding to the postal address received, a connection device (17) provided to forward the information data corresponding to said address data to the electronic address when such an address is established by the search, and to forward said data to the printer (8), when such an electronic address not is established by the search activated on reception of said data, to print the information inclusive the postal address the printer thereby producing a document adapted to be distributed by mail to the intended recipient (3) unit (25-28).

3. System according to claim 2 for computer-controlled distribution of information via number of different, alternative communication channels the system comprising as a part the computer-based sender unit (1) provided to produce electronic data corresponding to said information, which is including data indicating a postal address of an intended recipient's (3) unit (25-28), and being adapted to control a printer (8) to print said information, and as another part a service unit (2), a transmission line (15) connecting the sender unit (1) and the service unit (2) and provided to transmit said electronic data produced by the sender unit to the service unit, in the service unit a data register (16) containing a comprehensive directory of electronic addresses together with the corresponding postal addresses, data searching means provided to be activated by means of reception of said postal address data to search of an electronic address corresponding to the postal address received, a connection device (17) provided to forward the information data corresponding to said address data to the electronic address when such an address is established by the search, characterized by the service unit (2) being provided to perform a computer-based analysis of the content of the information, which by means of said search is established to be forwarded by electronic communication to a recipient's (3) unit (25-28), and

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being provided to complete said information data, with data based on said analysis and for effecting computer-based treatment of the information data at the recipient unit (35), including specifications for internal distribution in the recipients unit.

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4. System according to claim 3, characterized by that the said analysis is directed towards information relating to economical matters as debiting particulars containing numerical information in a great extent.

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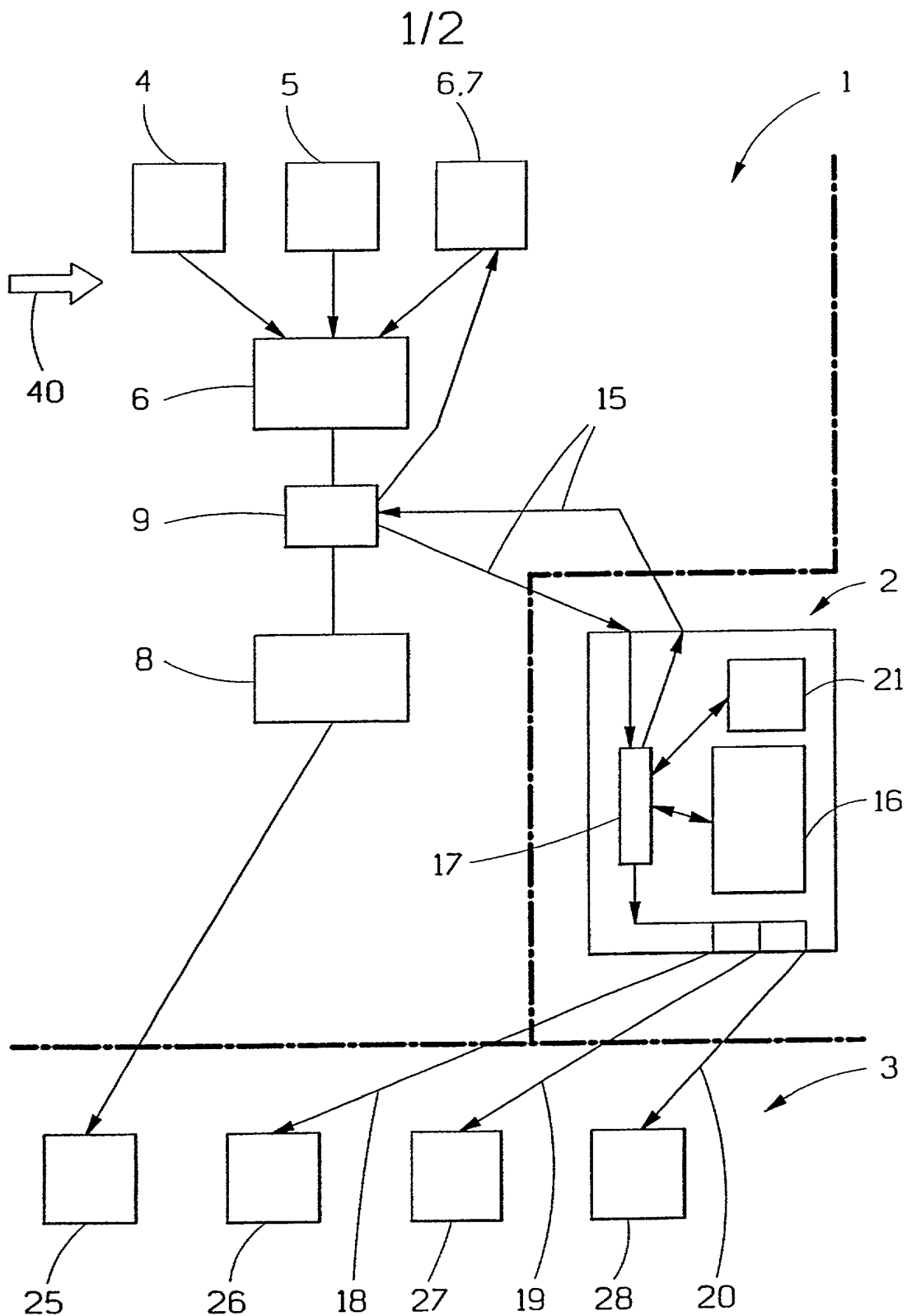


FIG.1

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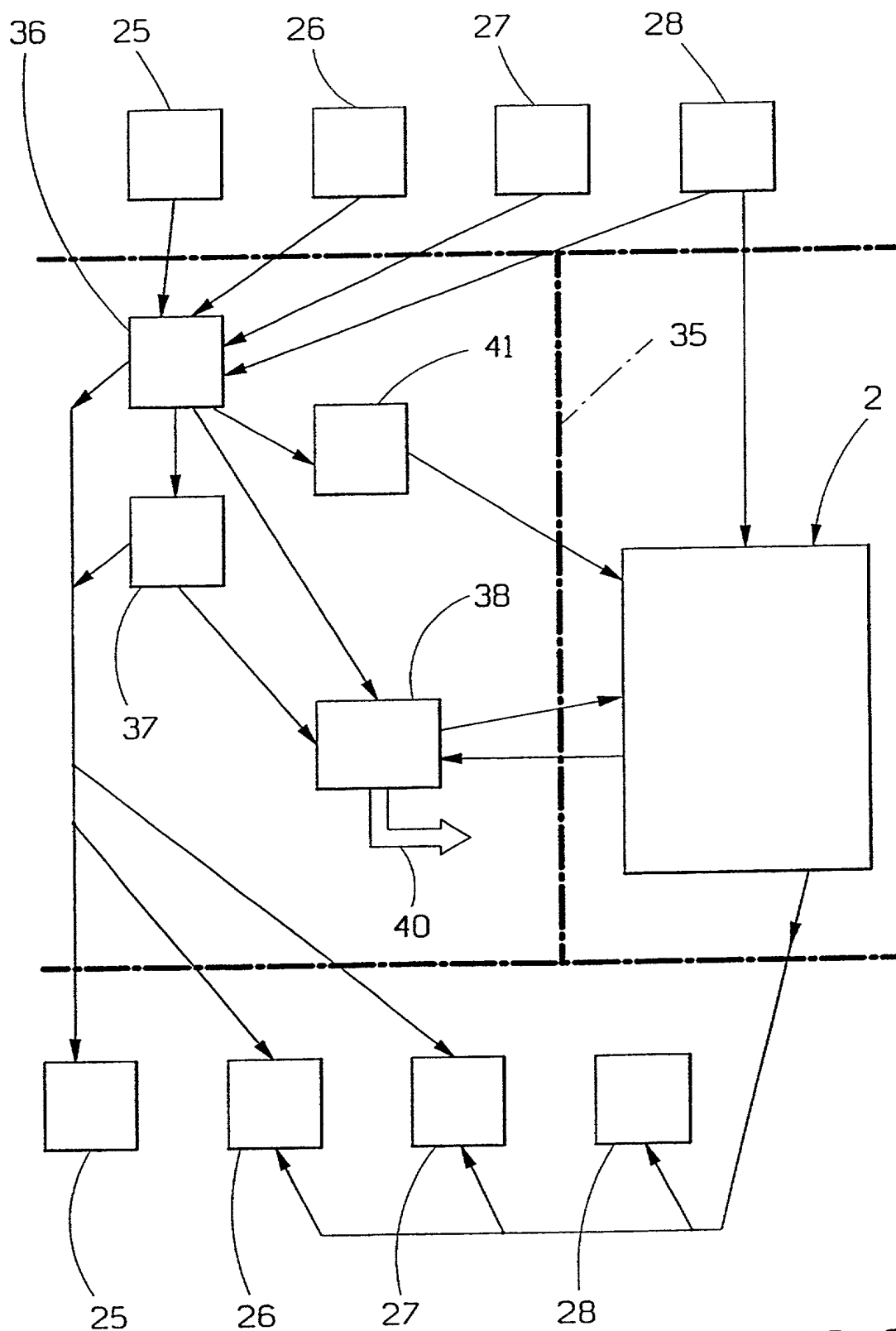


FIG.2

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION

ATTORNEY'S DOCKET NO.: ALBIHN W 3.3-420

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: A method for computer controlled distribution of information over a number of different, the specification of ~~which~~ communication systems and a system for the accomplishment of the method which

☐ is attached hereto

☒ was filed on March 23, 2000 as United States Application Number or PCT International Application Number PCT/SP00/00565 and was amended on April 3, 2001 (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate, or any PCT international application having a filing date before that of the application on which priority is claimed:

PRIOR FOREIGN APPLICATION(S)			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (month, day, year)	PRIORITY CLAIMED
Sweden	9901069-6	March 24, 1999	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
			YES <input type="checkbox"/> NO <input type="checkbox"/>
			YES <input type="checkbox"/> NO <input type="checkbox"/>

LISTING OF FOREIGN APPLICATIONS CONTINUED ON PAGE 3 HEREOF ☐ YES ☒ NO

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

Application Number: _____ Filing Date: _____

Application Number: _____ Filing Date: _____

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

U.S. Parent Application Serial Number: _____ Parent Filing Date: _____ Parent Patent No.: _____

Parent Application Serial Number: _____ Parent Filing Date: _____ Parent Patent No.: _____

PCT Parent Number: _____ Parent Filing Date: _____

LISTING OF US APPLICATIONS CONTINUED ON PAGE 3 HEREOF: ☐ YES ☒ NO

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Lawrence I. Lerner, Reg. No. 18,516; Sidney David, Reg. No. 22,768; Joseph S. Littenberg, Reg. No. 20,832; Arnold H. Krumholz, Reg. No. 25,428; William L. Mendel, Reg. No. 27,108; John R. Nelson, Reg. No. 26,573; Roy H. Wegner, Reg. No. 26,350; Stephen B. Goldman, Reg. No. 28,512; Paul H. Kochanski, Reg. No. 29,660; Marcus J. Millet, Reg. No. 28,241; Bruce H. Sales, Reg. No. 32,793; Daniel H. Bobbs, Reg. No. 18,894; Keith E. Gilman, Reg. No. 32,137; Robert B. Cohen, Reg. No. 32,768; Arnold B. Dompier, Reg. No. 28,738; Michael H. Teschner, Reg. No. 32,862; Gregory S. Gewirtz, Reg. No. 36,522; Jonathan A. David, Reg. No. 36,494; Shawn P. Foley, Reg. No. 33,071; Thomas M. Patis, Reg. No. 35,628; John P. Maltjian, Reg. No. 41,967; Jason D. Shanks, Reg. No. P-43,915; Kimberly V. Flugger, Reg. No. P-43,612; Jason I. Garbell, Reg. No. P-44,1187; Renee M. Robeson, Reg. No. 41,777.

SEND CORRESPONDENCE TO:
LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK, LLP
600 South Avenue West
Westfield, New Jersey 07090

DIRECT TELEPHONE CALLS TO:
(name and telephone number)
ARNOLD H. KRUMHOLZ
(908) 654-5000 Fax: (908) 654-7866

DECLARATION - Page 2

ATTORNEY DOCKET NO. ALBIHN W 3.3-420

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1-10 Full name of sole or first inventor (given name, family name): Sven PRYTZ
 Inventor's signature [Signature] Date October 17, 2001
 Residence: Lidingö, Sweden Citizenship: Sweden
 Post Office Address: Ängsklockevägen 26, S-181 57 Lidingö, Sweden

Full name of second joint inventor, if any (given name, family name): _____
 Second Inventor's signature _____ Date _____
 Residence: _____ Citizenship: _____
 Post Office Address: _____

Full name of third joint inventor, if any (given name, family name): _____
 Third Inventor's signature _____ Date _____
 Residence: _____ Citizenship: _____
 Post Office Address: _____

Full name of fourth joint inventor, if any (given name, family name): _____
 Fourth Inventor's signature _____ Date _____
 Residence: _____ Citizenship: _____
 Post Office Address: _____

Full name of fifth joint inventor (given name, family name): _____
 Fifth Inventor's signature _____ Date _____
 Residence: _____ Citizenship: _____
 Post Office Address: _____

Full name of sixth joint inventor, if any (given name, family name): _____
 Sixth Inventor's signature _____ Date _____
 Residence: _____ Citizenship: _____
 Post Office Address: _____

Full name of seventh joint inventor, if any (given name, family name): _____
 Seventh Inventor's signature _____ Date _____
 Residence: _____ Citizenship: _____
 Post Office Address: _____

Full name of eighth joint inventor, if any (given name, family name): _____
 Eighth Inventor's signature _____ Date _____
 Residence: _____ Citizenship: _____
 Post Office Address: _____